IN THE CLAIMS

Please amend the claims as follows:

1. (Original) A method of managing interference in a wireless frequency hopping (FH) communication system, comprising:

obtaining a first FH function;

obtaining an identifier for a first traffic channel defined with the first FH function;

modifying a second FH function based on the first FH function and the identifier for the first traffic channel to obtain a modified second FH function, wherein the second FH function is modified such that a second traffic channel defined with the modified second FH function and the first traffic channel are orthogonal or have low correlation; and

using the second traffic channel for data transmission.

2. (Original) The method of claim 1, wherein the first FH function is used for users in soft handoff with at least two base stations in the system, and wherein the second FH function is used for users not in soft handoff and in communication with one of the at least two base stations.

3. (Original) The method of claim 1, wherein the first FH function is for a first base station in the system and the second FH function is for a second base station in the system.

4. (Original) The method of claim 1, wherein the first FH function is used for broadcast by at least two base stations in the system, and wherein the first traffic channel is used to transmit broadcast data.

5. (Original) The method of claim 1, further comprising:

obtaining an identifier for a third traffic channel defined with the second FH function, wherein the third traffic channel is associated with the first traffic channel, and wherein the second FH function is further modified based on the identifier for the third traffic channel.

6. (Original) The method of claim 5, wherein the modified second FH function is given as:

$$\tilde{f}_2(k,T) = \begin{cases} f_2(k,T) & \text{if } f_2(k,T) \neq f_1(r,T) \\ f_2(v,T) & \text{otherwise} \end{cases}$$

where r is the identifier for the first traffic channel,

k is an identifier for the second traffic channel,

v is the identifier for the third traffic channel,

T is indicative of system time,

is the first FH function, which indicates a particular subband to use for traffic channel r in time T,

is the second FH function, and

is the modified second FH function.

7. (Original) The method of claim 5, wherein the identifiers for the first, second, and third traffic channels are obtained via over-the-air signaling.

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8. (Original) The method of claim 1, wherein the first traffic channel is associated with a first sequence of subbands determined by the first FH function and the identifier for the first traffic channel, and wherein the second traffic channel is associated with a second sequence of subbands determined by the modified second FH function and an identifier for the second traffic channel.

9. (Original) The method of claim 1, wherein the first and second FH functions are defined by first and second time shifts, respectively, of a pseudo-random number (PN) code.

10. (Original) The method of claim 1, wherein the second traffic channel is used for data transmission on a forward link from a base station to a terminal.

11. (Original) The method of claim 1, wherein the second traffic channel is used for data transmission on a reverse link from a terminal to a base station.

12. (Original) The method of claim 1, wherein the wireless communication system is an orthogonal frequency division multiple access (OFDMA) communication system.

13. (Original) An apparatus in a wireless frequency hopping (FH) communication system, comprising:

means for obtaining a first FH function;

means for obtaining an identifier for a first traffic channel defined with the first FH function;

means for modifying a second FH function based on the first FH function and the identifier for the first traffic channel to obtain a modified second FH function, wherein the second FH function is modified such that a second traffic channel defined with the modified second FH function and the first traffic channel are orthogonal or have low correlation; and

means for using the second traffic channel for data transmission.

14. (Currently Amended) An apparatus in a wireless frequency hopping (FH) communication system, comprising:

a processor operative to obtain a first FH function and an identifier for a first traffic channel defined with the first FH function, modify a second FH function based on the first FH function and the identifier for the first traffic channel to obtain a modified second FH function, an[[d]] provide an FH sequence for a second traffic channel defined with the modified second FH function, wherein the second FH function is modified such that the second traffic channel and the first traffic channel are orthogonal or have low correlation; and

a switch operative to determine a particular one of a plurality of frequency subbands to use in each of a plurality of frequency hop periods based on the FH sequence for the second traffic channel.

15. (Original) The apparatus of claim 14, further comprising:

a modulator operative to modulate data for the second traffic channel and provide modulation symbols, and wherein the switch is operative to provide the modulation symbols to subbands determined by the FH sequence for the second traffic channel.

16. (Original) The apparatus of claim 14, further comprising:

a demodulator operative to obtain, from the switch, received modulation symbols on subbands determined by the FH sequence for the second traffic channel and to demodulate the received modulation symbols to provide demodulated data for the second traffic channel.

17. (Original) A terminal comprising the apparatus of claim 14.

18. (Original) A base station comprising the apparatus of claim 14.

19. (Original) A processor readable media for storing instructions operable to:

obtain a first frequency hopping (FH) function;

obtain an identifier for a first traffic channel defined with the first FH function; and

modify a second FH function based on the first FH function and the identifier for the first traffic channel to obtain a modified second FH function, wherein the second FH function is modified such that a second traffic channel defined with the modified second FH function and the first traffic channel are orthogonal or have low correlation, and wherein the second traffic channel is used for data transmission on a forward link or reverse link.

20. (Original) A method of managing interference in a wireless frequency hopping (FH) communication system, comprising:

receiving an assignment of a first traffic channel defined with a first FH function;

using the first traffic channel for communication with a first base station;

receiving an assignment of a second traffic channel defined with a second FH function, wherein the first and second FH functions are orthogonal or have low correlation; and

using the second traffic channel for communication with the first base station and a second base station.

21. (Original) The method of claim 20, wherein the second base station is associated with a third FH function for defining a third traffic channel used for communication with the second base station, wherein the second and third FH functions are orthogonal or have low correlation, and wherein the first FH function is pseudo-random with respect to the third FH function.

22. (Original) The method of claim 20, wherein the first and second FH functions are defined by first and second time shifts, respectively, of a pseudo-random number (PN) code.

23. (Original) The method of claim 20, wherein the first traffic channel is used to send a first transmission on a forward link from the first base station to a terminal, and wherein the second traffic channel is used to send a second transmission on the forward link from the first and second base stations to the terminal.

24. (Original) The method of claim 20, wherein the first traffic channel is used to send a first transmission on a reverse link from a terminal to the first base station, and wherein the second traffic channel is used to send a second transmission on the reverse link from the terminal to the first and second base stations.

25. (Original) The method of claim 20, wherein the wireless communication system is an orthogonal frequency division multiple access (OFDMA) communication system.

26. (Original) An apparatus in a wireless frequency hopping (FH) communication system, comprising:

means for receiving an assignment of a first traffic channel defined with a first FH function;

means for using the first traffic channel for communication with a first base station;

means for receiving an assignment of a second traffic channel defined with a second FH function, wherein the first and second FH functions are orthogonal or have low correlation; and

means for using the second traffic channel for communication with the first base station and a second base station.

27. (Original) An apparatus in a wireless frequency hopping (FH) communication system, comprising:

a processor operative to receive an assignment of a first traffic channel defined with a first FH function and provide a first FH sequence for the first traffic channel, wherein the first traffic channel is used for communication with a first base station; and

a switch operative to determine a particular one of a plurality of frequency subbands to use in each of a first plurality of frequency hop periods based on the first FH sequence for the first traffic channel, and

wherein the processor is further operative to receive an assignment of a second traffic channel defined with a second FH function and provide a second FH sequence for the second traffic channel, wherein the second traffic channel is used for communication with the first base station and a second base station, and wherein the switch is further operative to determine a particular one of a plurality of frequency subbands to use in each of a second plurality of frequency hop periods based on the second FH sequence for the second traffic channel.

28. (Currently Amended) A method of managing interference in a wireless frequency hopping (FH) communication system, comprising:

receiving a first transmission on a first traffic channel from a first base station, wherein the first traffic channel is defined with a first FH function associated with the first base station; and

receiving a second transmission on a second traffic channel from the first base station and a second base station, wherein the second traffic channel is defined with a second FH function, wherein a third FH function is associated with the second base station, wherein the second FH function is orthogonal to or has low correlation with both the first and third FH functions, and wherein the first FH function is pseudo-random with respect to the third FH function;

obtaining an identifier for a third traffic channel defined with the second FH function, wherein the third traffic channel is associated with the first traffic channel, and wherein the second FH function is further modified based on the identifier for the third traffic channel; wherein the

modified second FH function is given as:

$$\tilde{f}_2(k,T) = \begin{cases} f_2(k,T) & \text{if } f_2(k,T) \neq f_1(r,T) \\ f_2(v,T) & \text{otherwise} \end{cases}$$

where r is the identifier for the first traffic channel,

k is an identifier for the second traffic channel,

v is the identifier for the third traffic channel,

T is indicative of system time,

is the first FH function, which indicates a particular subband to use for traffic channel r in time T, is the second FH function, and

is the modified second FH function.

29. (Original) The method of claim 28, wherein the second transmission includes broadcast data.

30. (Currently Amended) An apparatus in a wireless frequency hopping (FH) communication system, comprising:

means for receiving a first transmission on a first traffic channel from a first base station, wherein the first traffic channel is defined with a first FH function associated with the first base station; and

means for receiving a second transmission on a second traffic channel from the first base station and a second base station, wherein the second traffic channel is defined with a second FH function, wherein a third FH function is associated with the second base station, wherein the second FH function is orthogonal to or has low correlation with both the first and third FH

functions, and wherein the first FH function is pseudo-random with respect to the third FH function;

means for obtaining an identifier for a third traffic channel defined with the second FH function, wherein the third traffic channel is associated with the first traffic channel, and wherein the second FH function is further modified based on the identifier for the third traffic channel;

wherein the modified second FH function is given as:

$$\tilde{f}_2(k,T) = \begin{cases} f_2(k,T) & \text{if } f_2(k,T) \neq f_1(r,T) \\ f_2(v,T) & \text{otherwise} \end{cases}$$

where r is the identifier for the first traffic channel,

k is an identifier for the second traffic channel,

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is the modified second FH function.

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